

IN THE CLAIMS

1. (Currently Amended) A device comprising:
 - a memory; and
 - a processor coupled with the memory, wherein the processor is adapted to:
 - receive a reservation request from a first peripheral device for a wireless communication session between the first peripheral device and the processor;
 - receive another reservation request from a second peripheral device for another wireless communication session between the second peripheral device and the processor;
 - generate a schedule in response to the reservation request and the another reservation request, the schedule coordinating the wireless communication session for coordinating a
~~wireless communication session for wirelessly exchanging data between the processor and a first peripheral device only during a first time window having a designated start time and a designated end time, and for also the schedule coordinating the another wireless communications communication session to begin for wirelessly exchanging data between the processor and a second peripheral device only after the end time of the first time window;~~
designated end time;
 - wirelessly transmit at least one a multi-poll scheduling frame that encodes the schedule; to the first peripheral device and the second peripheral device, the schedule encoded in the multi-poll scheduling frame;
 - wirelessly exchange data with the first peripheral device only during the scheduled first time window;
 - ~~complete exchanging data with the first peripheral device before the first time window ends;~~
 - wirelessly transmit a rescheduling frame in response to the wireless data exchange with the first peripheral device completing before the designated end time occurs, the rescheduling frame dynamically enabling the second peripheral device to begin the another wireless communication session before the end of the first time window when the data exchange with the first peripheral device completes before the designated end time for the first time window; and
 - wirelessly exchange data with the second peripheral device before the first time window ends pursuant to the rescheduling frame.

2. (Original) The device of claim 1, wherein the rescheduling frame is a null frame.
3. (Original) The device of claim 1,
wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity, and the processor is further adapted to:
encode data about the periodicity in the multi-poll scheduling frame.
4. (Original) The device of claim 3, wherein the rescheduling frame is a null frame.
5. (Currently Amended) A device comprising:
a memory; and
a processor coupled with the memory, wherein the processor is adapted to:
wirelessly transmit a reservation request to another device for wireless communications with the another device;
wirelessly receive ~~at least one~~ a multi-poll scheduling frame;
decode from the ~~wirelessly received~~ multi-poll scheduling frame a schedule for wireless communications with the another device ~~only~~ during a first time window having a defined start time and end time and for subsequent wireless communications during a second time window having a defined start time and end time that does not overlap with the first time window during which to exchange data;
during the first time window, wirelessly receive a rescheduling frame enabling wireless communications for the second time window to begin before the end time of the first time window;
dynamically reschedule wireless communications during the second time window to begin before the end of the first time window in response to the rescheduling frame; and
wirelessly exchange data during the rescheduled second time window before the first time window ends.
6. (Original) The device of claim 5, wherein the second time window is rescheduled to start immediately after the rescheduling frame.
7. (Original) The device of claim 5, wherein the rescheduling frame is a null frame.

8. (Original) The device of claim 5, wherein the processor is further adapted to: decode from the received multi-poll scheduling frame periodicity data about alternating the first time window and the second time window.
9. (Original) The device of claim 8, wherein the second time window is rescheduled to start immediately after the rescheduling frame.
10. (Original) The device of claim 8, wherein the rescheduling frame is a null frame.
11. (Currently Amended) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by at least one device, result in:
generating a schedule for wirelessly exchanging data during a wireless communication session with a first ~~wireless~~ peripheral device ~~only~~ during a first time window, and for wirelessly exchanging data with a second peripheral device ~~only~~ after the first time window, the schedule generated in response to a request for the wireless communication session from the first peripheral device and in response to another request for another wireless communication session from the second peripheral device;
wirelessly transmitting at least one multi-poll scheduling frame that encodes the schedule, the multi-poll scheduling frame containing instructions for the first peripheral device and the second peripheral device;
wirelessly exchanging data with the first peripheral device after the scheduled first time window starts;
completing wirelessly exchanging data with the first peripheral device before the first time window ends;
wirelessly transmitting a rescheduling frame to the second peripheral device that dynamically during the same wireless communication session enables the second peripheral device to start wirelessly exchanging data before the end of the first time window; and
wirelessly exchanging data with the second peripheral device before the first time window ends.
12. (Original) The article of claim 11, wherein the rescheduling frame is a null frame.

13. (Original) The article of claim 11,
wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity,
and the instructions further result in:
encoding data about the periodicity in the multi-poll scheduling frame.
14. (Original) The article of claim 13, wherein the rescheduling frame is a null frame.
15. (Currently Amended) An article comprising: a storage medium, said storage medium having stored thereon instructions, that, when executed by ~~at least one~~ a first wireless device, result in:
wirelessly transmitting a reservation request for a wireless communication session with a second wireless device;
wirelessly receiving ~~at least one~~ a multi-poll scheduling frame, the multi-poll scheduling frame including instructions for the first wireless device and a third wireless device;
decoding from the received multi-poll scheduling frame a schedule for a the wireless communication session that identifies a first time window defining a wireless communication start time and a wireless communication stop time and a subsequent second time window defining a wireless communication start time and a wireless communication stop time during which to wirelessly exchange data, the wireless communication start time for the second time window being after the wireless communication stop time for the first time window;
during the first time window, receiving a rescheduling frame directing wireless communication during the second time window to begin before the wireless communication stop time for the first time window;
dynamically rescheduling the second time window during the wireless communication session in response to the rescheduling frame; and
wirelessly exchanging data during the rescheduled second time window before the wireless communication stop time for the first time window.
16. (Original) The article of claim 15, wherein the second time window is rescheduled to start immediately after the rescheduling frame.

17. (Original) The article of claim 15, wherein the rescheduling frame is a null frame.
18. (Original) The article of claim 15, wherein the instructions further result in:
decoding from the received multi-poll scheduling frame periodicity data about
alternating the first time window and the second time window.
19. (Original) The article of claim 18, wherein the second time window is
rescheduled to start immediately after the rescheduling frame.
20. (Original) The article of claim 18, wherein the rescheduling frame is a null frame.
21. (Currently Amended) A method comprising:
receiving reservation requests from a first peripheral device and a second peripheral device;
generating a schedule for wirelessly exchanging data with a the first peripheral device
during a first time window; window and for wirelessly exchanging data with a the second
peripheral device ~~only~~ after the first time window ends, the schedule defining a specific
wireless communication start time and a wireless communication stop time for wirelessly
communicating data during the first time window;
wirelessly transmitting ~~at least one a~~ multi-poll scheduling frame that encodes the
schedule, the multi-poll scheduling frame containing instructions for the first peripheral
device and for the second peripheral device;
wirelessly exchanging data with the first peripheral device ~~only~~ during the scheduled
first time window;
completing wirelessly exchanging data with the first peripheral device before the
wireless communication stop time for the first time window;
wirelessly transmitting a rescheduling frame that directs the second peripheral device
to begin wireless communication before the wireless communication stop time for the first
time window; and
wirelessly exchanging data with the second peripheral device before the end of the
first time window in response to the reschedule frame.
22. (Original) The method of claim 21, wherein the rescheduling frame is a null
frame.

23. (Original) The method of claim 21, wherein the generated schedule provides for exchanging data with only the second peripheral device during a second time window, and that the second time window alternate with the first time window according to a periodicity, and further comprising:
encoding data about the periodicity in the multi-poll scheduling frame.
24. (Original) The method of claim 23, wherein the rescheduling frame is a null frame.
25. (Currently Amended) A method comprising:
wirelessly transmitting a reservation request for a wireless communication session;
wirelessly receiving ~~at least one~~ a multi-poll scheduling frame associated with ~~a~~ the wireless communication session;
decoding from the received multi-poll scheduling frame a schedule for a first time window and for a subsequent second time window during which to wirelessly exchange data, the first and second time windows specifying non-overlapping wireless communication periods that each have an associated beginning wireless communication start time and an ending communication stop time;
during the first time window, wirelessly receiving a rescheduling frame that dynamically redirects the second time window to start before the end of the first time window;
rescheduling the second time window in response to the rescheduling frame; and
wirelessly exchanging data during the rescheduled second time window before the first time window ends.
26. (Original) The method of claim 25, wherein the second time window is rescheduled to start immediately after the rescheduling frame.
27. (Original) The method of claim 25, wherein the rescheduling frame is a null frame.

28. (Original) The method of claim 25, further comprising:
decoding from the received multi-poll scheduling frame periodicity data about
alternating the first time window and the second time window.
29. (Original) The method of claim 28, wherein the second time window is
rescheduled to start immediately after the rescheduling frame.
30. (Original) The method of claim 28, wherein the rescheduling frame is a null
frame.